
SUNRISE MEDICAL
QUICKIE
KRYPTON
KRYPTON
Kr = TECHNOLOGY EVOLVED

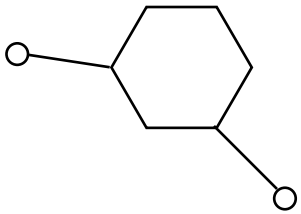
TECHNOLOGY EVOLVED

PIONEERING wheelchairs didn't always exist...
QUICKIE created them.

VISIONARY Quickie founder Marilyn Hamilton designed the Quickie 1 in the 1980s. Bred out of frustration with the wheelchairs available at the time, she set out to create a chair made from lightweight hang gliding materials and developed the first lightweight adjustable wheelchair to provide true energy efficiency.

Thirty years on that thirst for more ENERGY EFFICIENT wheelchairs remains and the desire to use the latest technology is still in our DNA. That's why we have taken the leading technology of our time to create the most advanced manual wheelchair to date - the Krypton.


#PIONEERINGDESIGN



HISTORY EVOLVED

The heritage of QUICKIE wheelchairs didn't just happen by accident. It has been a demanding journey that spans four decades of discovery into the best technologies and materials of each era.

INNOVATION ESTABLISHED

The QUICKIE 1 is released to the UK as the GPV.

Constructed from lightweight aluminium used in hang gliders and creating the first lightweight wheelchair that offered adjustment for true energy efficient configurations.

1980s

TITANIUM EXPLORED

QUICKIE explores the use of Titanium in the QUICKIE TI.

Although an initial success, flex in the frame reduced its efficiency. After further research the design of the chair exists today but we switched to aerospace grade T6 aluminium, now the QUICKIE ARGON^2.

1990s

INITIATE APPLIED SCIENCES

QUICKIE invests in a broad market research project.

The objective of which is to understand technologies that had been developed from other industries and how these could add value to QUICKIE'S wheelchair designs.

Investment in the cycling industry had led to some fantastic engineering that could offer distinct advantages to the design of our wheelchairs. This led to core technology upgrades that were used in the QUICKIE HELIUM. [more overleaf]

2000s

INNOVATION EVOLVED

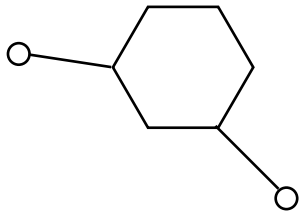
Quickie's latest development #FASHIONABLYLATE.

CARBON FIBRE has been used in many industries for a long time and has been available in wheelchairs for a number of years.

QUICKIE have persisted to optimise how carbon fibre is manufactured to create the perfect balance of strength and rigidity.

The white coats in our APPLIED SCIENCES division have endeavoured to search out the best techniques - for the best results. The result? A seat frame braided from continuous carbon fibre threads. Our X-BRAID technology is unique to QUICKIE and delivers a carbon fibre wheelchair like never before.

INNOVATION EVOLVED



MATERIALS EVOLVED

The QUICKIE HELIUM story….

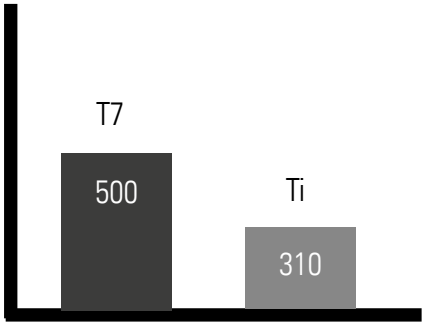
QUICKIE wheelchairs had a very short affair with Titanium. Put simply, Titanium didn't offer the best attributes for our energy efficient chairs.

Our objective was to transfer as much energy to forward propulsion, whilst maintaining the strength to deal with active use.

When designing the QUICKIE HELIUM we used T7 aluminium, oval frame tubes and hydroformed bends. These technologies were commonly used in professional cycling and meant that we could design a chair that was very lightweight and extremely rigid offering a revolution in wheelchair ride.

T7 ALUMINIUM

The tensile strength test is used to measure how resistant a material is to elongating or stretching. We decided to use T7 ALUMINIUM to avoid stretch and flex found in other materials. Graph shows T7 Aluminium Vs Titanium.



Tensile strength: Ultimate (UTS), MPa

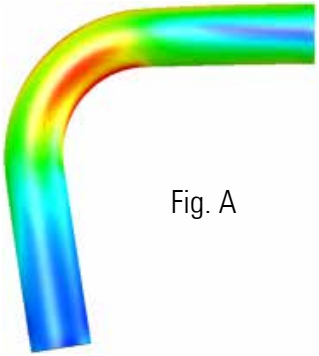


Fig. A

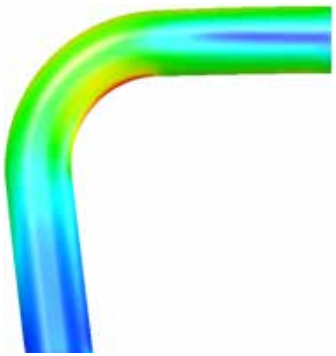


Fig. B

HYDROFORMING

When an aluminium tube is bent, the material is stretched creating stress points on the outside and inside of the tube (Fig A).

HYDROFORMING is a complex manufacturing process where water is blasted down the tube whilst being bent. The walls of the tube are not stretched to the same degree, in this instance and create a more even wall thickness, resulting in a significant reduction in weak points of the frame. (Fig. B).

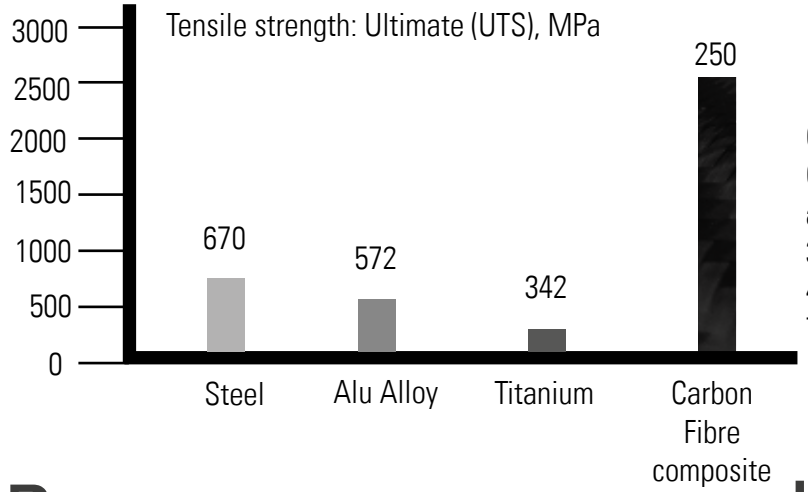
INNOVATION EVOLVED

PIONEERING innovation was at the heart of the QUICKIE 1 and has remained at the core of each and every QUICKIE lightweight wheelchair thereafter.

UNIQUE manufacturing allows us to create a carbon wheelchair - like never before - using technology previously unseen in wheelchairs. We are proud to introduce our X BRAID technology which ensures STRENGTH, rigidity and constant QUALITY.

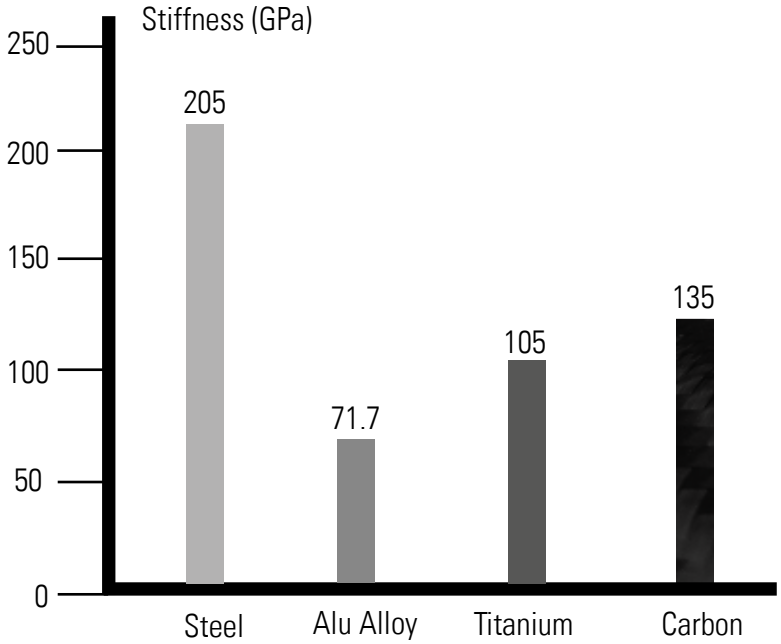
Our X BRAID technology creates a revolutionary material that's STRONGER, STIFFER and LIGHTER than ever before. Find out more on the following page.

STRONGER



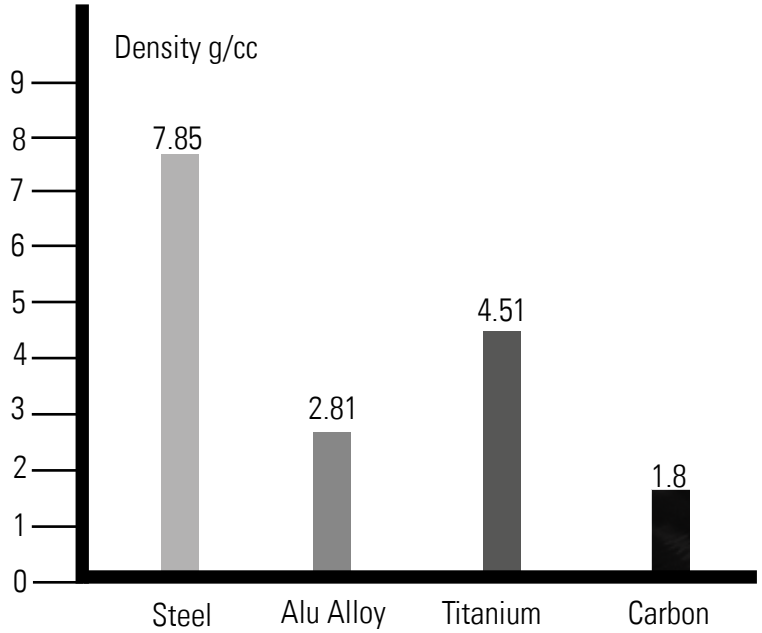
Carbon Fibre Vs Traditional Materials
Carbon Fibre provides significantly more strength than steel, aluminium and titanium.
3.8 x stronger than steel
4.5 x stronger than aluminium
7.4 x stronger than titanium

STIFFER



Carbon Fibre Vs Traditional Materials
Excluding steel, which is too heavy,
Carbon Fibre is stiffer than aluminium and titanium.
88% more resistant to deformation than aluminium
29% more resistant to deformation than titanium

LIGHTER



Carbon Fibre Vs Traditional Materials
Unmistakably Carbon Fibre is the lightest material.
Steel is 4.4 x heavier
Aluminium is 1.6 x heavier
Titanium is 2.5 x heavier

CARBON BRAIDING

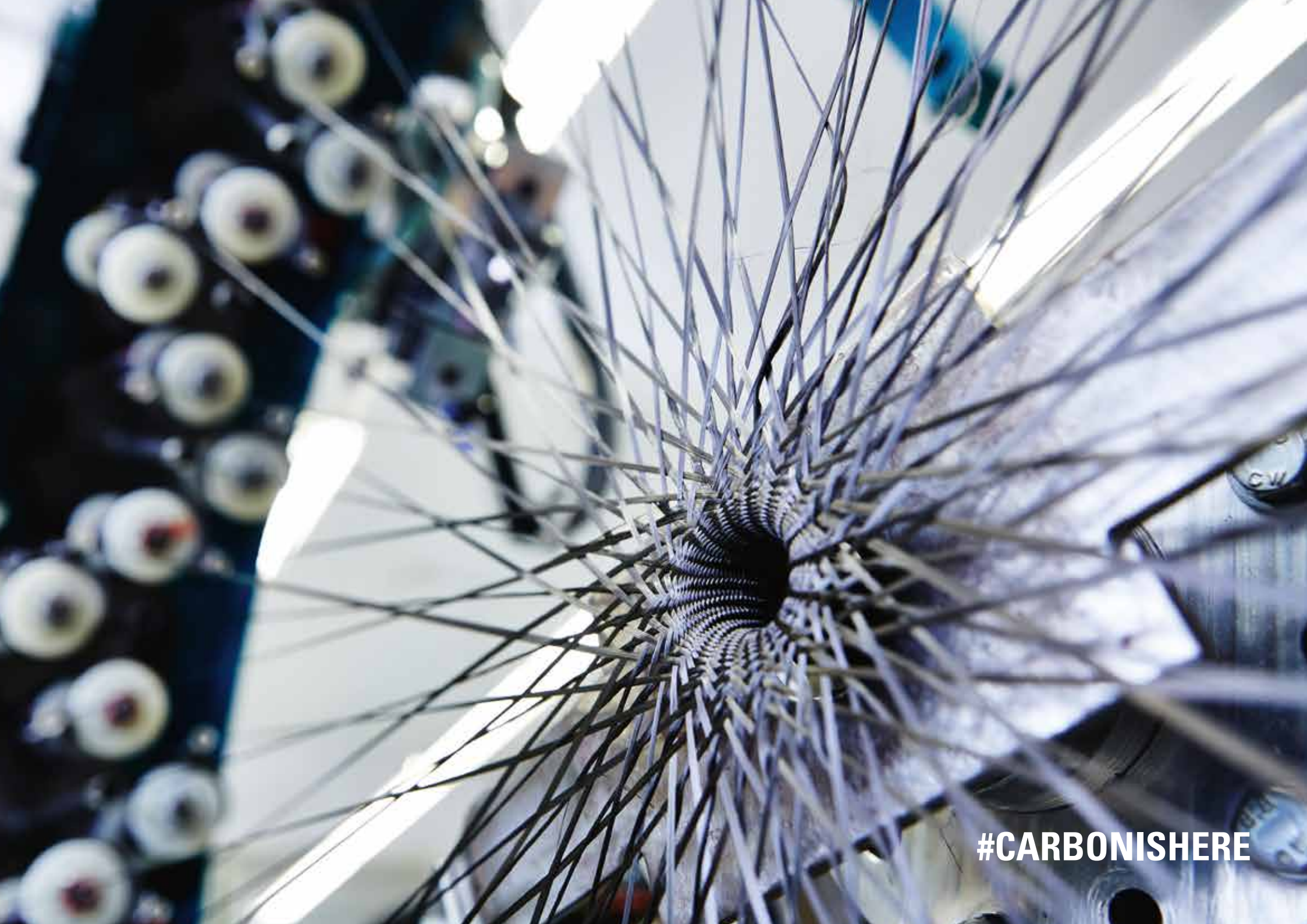
CARBON FIBRE is five times STRONGER than steel and STIFFER and LIGHTER than any other material available that's why it's the material of choice for the Krypton.

Unlike traditional manufacturing techniques where carbon is layered, the revolutionary Krypton X BRAID technology creates a constant weave in the frame tubing, ensuring ZERO weak links and delivering a precise and consistent result EVERY TIME.

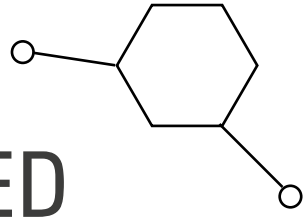
The combination of this ELEGANT manufacturing process combined with this market leading material creates a new INNOVATION, truly pushing wheelchair technology to the next level.

X-BRAID IN MOTION

Take a look at how the X Braid is created:


#CARBONISHERE


KRYPTON
QUICKIE
BISON
#STRONGERBYDESIGN



STRENGTH EVOLVED

Krypton is designed using a UNIQUE design concept for carbon fibre. X BRAID technology provides the Krypton with unparalleled STRENGTH and durability previously unseen in carbon wheelchairs.

Once the carbon tube has been braided, it is sealed with a resin for strength. When you receive your Krypton you will be using a chair that is able to keep up with your daily activities, whatever life delivers.

X BRAID is just one of the unique technologies we use to ensure each carbon Krypton is BEST IN CLASS. The Krypton actually uses a number of manufacturing processes that are completely unique to the chair. **Ask your KRYPTON AGENT for more details.**

ENERGY EVOLVED

Unique manufacturing techniques makes the Krypton the BEST IN CLASS when it comes to STRENGTH and durability.

ENERGY EFFICIENCY is in our DNA and the Krypton blends adapted technology and fine tuned capabilities to offer our most energy efficient wheelchair to date.

The front of the Krypton is LIGHTER than ever before, so you exert less energy when pushing. The centre of gravity of the chair can be tailored to your shape and propulsion style to ensure the optimal set up for you.

Our exclusive KRYPTON AGENTS will carry out a detailed handover to ensure that each Krypton is fitted and styled to suit you. This attention to detail combined with the light rigidity of the Krypton frame provides our best PERFORMANCE ride to date.


#EFFICIENTENERGY


KRYPTON


QUICKIE


UNDERGROUND


JAY
LITE


KRYPTON
firstclass
ComCab

COMMISSIONED CARBON

SCULPTING wheelchairs is an art we have developed over the last 30 years. We understand that everyone has a different shape and size and we know how important it is to have a wheelchair bespoke to you.

With that in mind, there are over 10,000 configuration possibilities for each Krypton version (R&F). Our exclusive agents will be able to recommend the best options for your shape, lifestyle and requirements.

Each Krypton comes with carbon options that complement the frame tube to cater for many demands and preferences. In the event that these don't perfectly suit you, there's a range of alternative options available. Speak to your exclusive KRYPTON AGENTS to find out more.


#CARBONART


QUICKIE

PERSONALISED CARBON

The ART of prescribing a wheelchair is something that our exclusive dealers have decades of experience in.

Sometimes options are selected for their aesthetics, often it's to deal with the demands of the environment or even due to personal preference. Whatever your requirements we can tailor-make your Krypton to suit you.

Your exclusive KRYPTON AGENT will take time to talk you through the vast range of options - some of which are unique to the Krypton - to ensure that your Krypton will be perfect for you.

KRYPTON R: RIGID EFFICIENCY

The Krypton R is our rigid option, and our most EFFICIENT. The rigid axle tube (see left) is very stiff and reduces overall movement in the chair allowing more of the energy you put into the chair to be transferred to forward propulsion.

The backrest can be folded and the rear wheels removed to allow for a lightweight folding package to be lifted into the car. The transfer weight of the chair can start from as little as 3.65kg, meaning less stress on your shoulders and giving you the FREEDOM to live life on your terms.

weight from

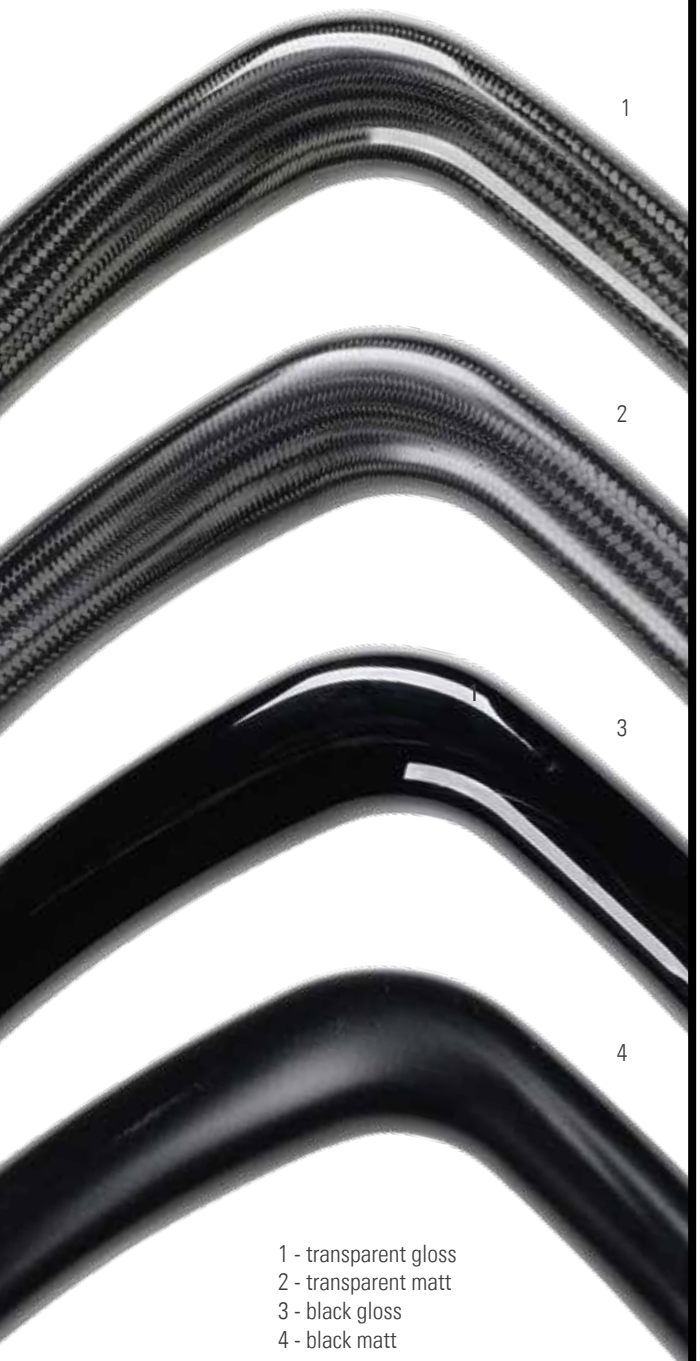
3.65kg

KRYPTON F: FOLDING FOR TRAVEL

The Krypton F is the folding option, this means that it can fold horizontally for a more COMPACT transportation size. The folding crossbrace (to the right) is our most advanced crossbrace ever and is extremely lightweight. The Krypton F is 500g lighter than the Xenon FF and is the lightest adjustable wheelchair in the world.

When the chair is folded, you can choose to remove the wheels or stow the chair in a folded position. The fold down back option provides an even more COMPACT folding package.

weight from 5.8kg



1 - transparent gloss
2 - transparent matt
3 - black gloss
4 - black matt

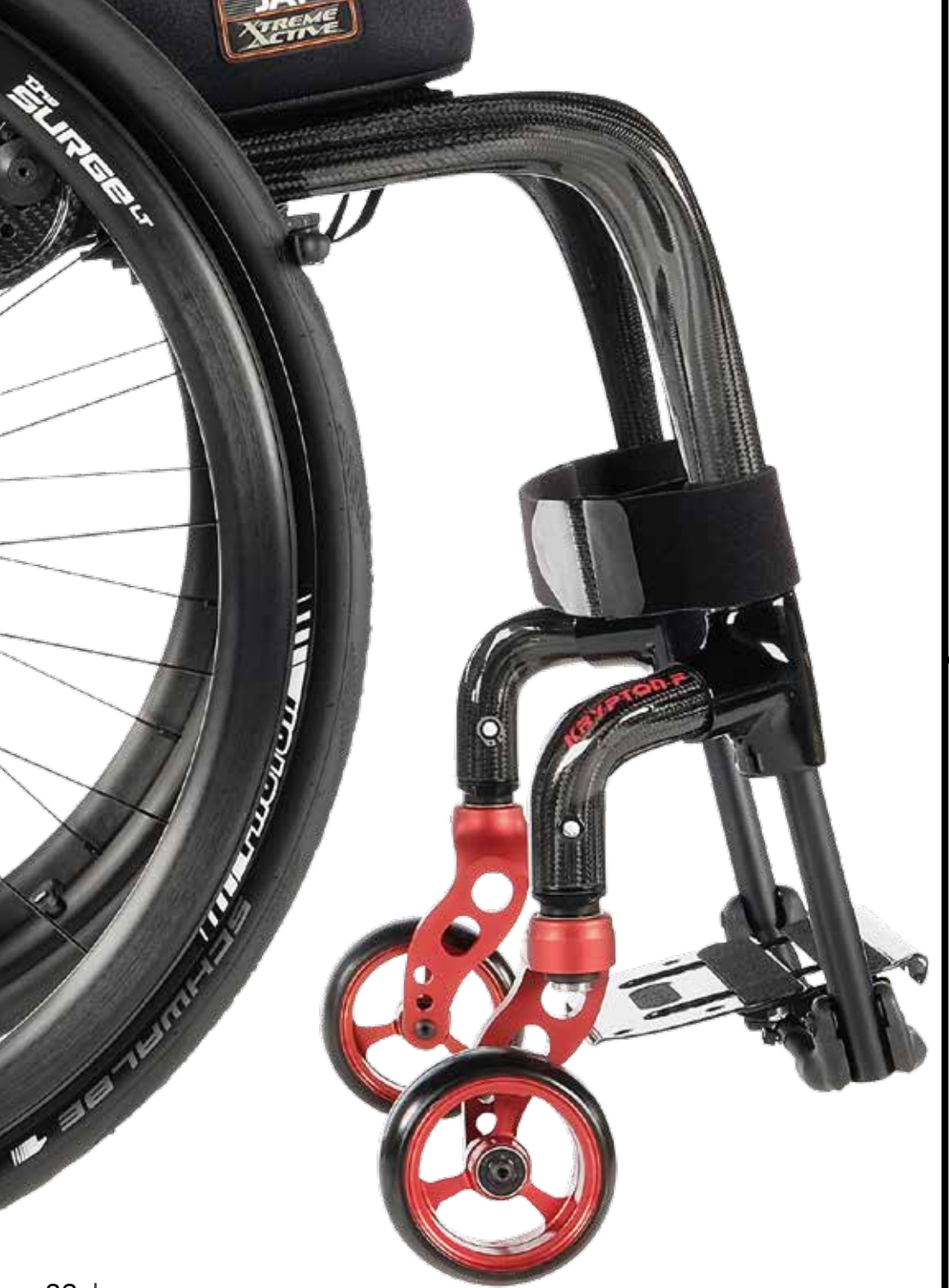
ELEGANT CARBON

FINISH your Krypton with a choice of frame options and colour accents.

The frame tubing can be left raw or coated (see options to the left) to offer a premium look to suit you and your style.

Contrasting or COMPLEMENTING colour accents add a splash of personality and allow you to show off your signature style, so you can be as bold, or as minimal as you desire.

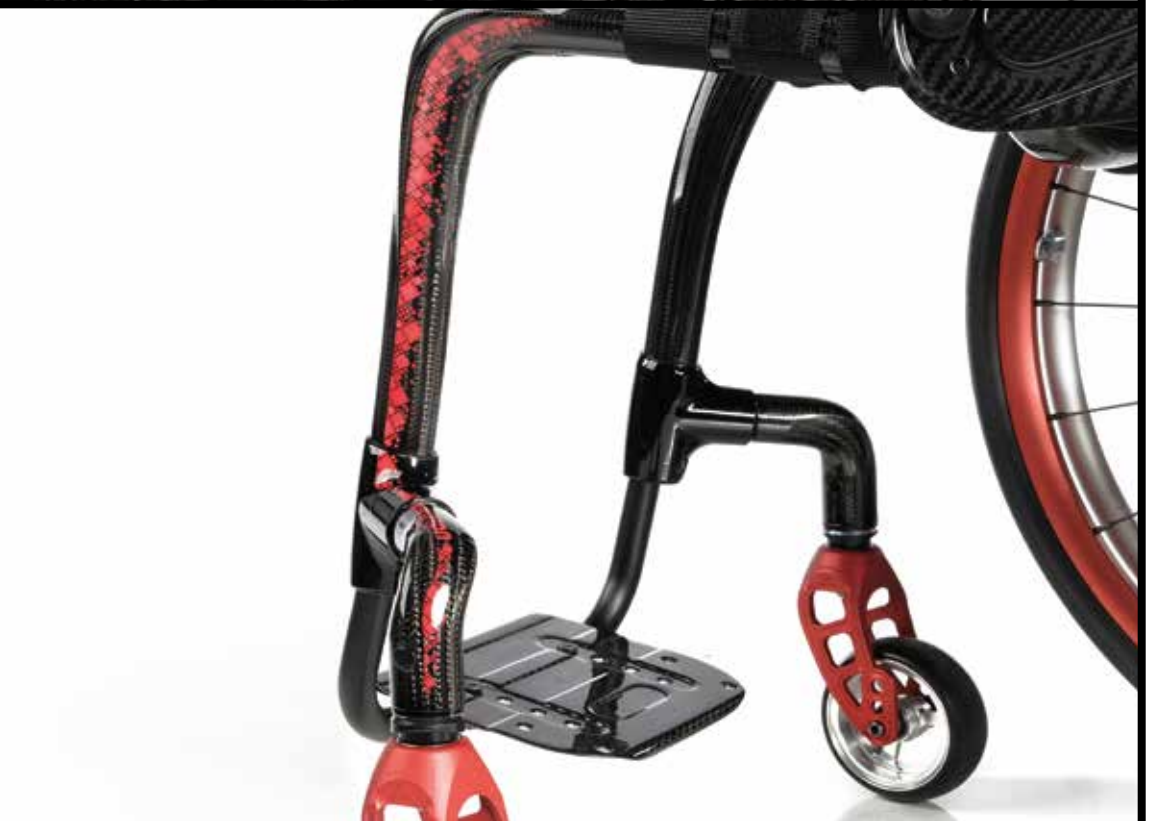

JAY
LITE
SCHWALBE ONE
QUICKIE


XTREME XCTIVE
SURGE LT
KRYPTON F


KRYPTON F


KRYPTON R


JAY
LITE




JAY
LITE
SCHWALBE

KRYPTON

VIP

CHOOSE FROM A SELECTION OF TAILOR-MADE OPTIONS TO SUIT YOU AND YOUR LIFESTYLE.
CONTACT AN EXCLUSIVE KRYPTON AGENT TO FIND THE PERFECT OPTIONS FOR YOU.

EMAIL: KRYPTON@SUNMED.CO.UK

TECHNICAL DATA

	Krypton R – Rigid Carbon Wheelchair	Krypton F – Folding Carbon Wheelchair
Max. user weight	125 kg	110 kg
Frame version	Rigid wheelchair with open front frame design	Folding wheelchair with open front frame design
Frame material	Carbon fibre	Carbon fibre
Seat width	320 - 460 mm (in 20 mm increments)	320 - 460 mm (in 20 mm increments)
Seat depth	340 - 480 mm (in 20 mm increments)	340 - 480 mm (in 20 mm increments)
Seat height front	430 - 550 mm	430 - 550 mm
Seat height rear	380 - 500 mm	370 - 500 mm
Backrest height	250 - 450 mm	250 - 475 mm
Backrest angle	59° - 105°	75° - 103°
Wheel camber	0°/3°	0°/2°/4°
Total width // length // height	760 mm // 930 mm // 950 mm	720 mm // 1075 mm // 950 mm
Max. pivot width	700 mm	700 mm
Max. safe slope	7° (for use of parking brakes)	7° (for use of parking brakes)
Front wheel // Rear wheel	3"/4"/5"/6" // 24"/25"	3"/4"/5"/6" // 24"/25"
Wheelchair weight	from 6.2 kg	from 8.3 kg
Dismantled weight	from 3.65 kg	from 5.8 kg
Mass of heaviest part	Rear wheel 1.1 kg	Rear wheel 1.1 kg
Removable parts	Rear wheels (for transport only)	Rear wheels, hangers & sideguards (for transport only)
Carbon frame finishing	Nature; transparent painting gloss & matt, black painting gloss & matt	Nature; transparent painting gloss & matt, black painting gloss & matt
Crash tested	Not approved for transport in a vehicle	
Transport without user	Fix the wheelchair safely in the vehicle (e.g. car or plane)	
Intended use and environment	For people with limited mobility (adolescents & adults); self-propelling or being pushed by an assistant, indoor and outdoor use.	

SUNRISE MEDICAL

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For further information on the full specification, options and accessories, please refer to the order form. All information is subject to change without notification. Please consult Sunrise Medical with any queries you may have.

If you are visually impaired, this document can be viewed in PDF format at www.SunriseMedical.co.uk

ISO 14001 Environmental Management System

KryptonPB-UK-EN-REV01-112017